

U.S. Application No. 09/506,808

**REMARKS**

The Applicants request reconsideration of the rejection.

Claims 34-77 remain pending, including independent claims 34, 37, 40 and 45.

Claims 34-51, 54-57, 60-63, 66-69 and 72-77 stand rejected under 35 U.S.C. §102(e) as being anticipated by Ausubel, U.S. Patent No. 5,905,975 (Ausubel). The Applicants traverse as follows.

Both the present invention and Ausubel are directed to auction methods and systems for determining a successful bidder or bidders, but the methods and systems differ from each other. In particular, whereas the present invention loops to a resolution beginning with a current auction price and ending with a strike price determined by finding that a competitive state no longer occurs, following successive increases in the auction price by predetermined values until there is no competitive state, Ausubel teaches a Vickery auction that begins with a sealed bid from each bidder, and concludes with a price determined by looping through successive price parameters that do not coincide with the claimed auction price.

Turning to claim 34, the method claimed therein includes the "judging, determining, and judging" steps of judging whether a current auction price is equal to or lower than the price each bidder thinks acceptable to pay, determining each remaining bidder who has sent price information by which it is judged that the current auction price is equal to or lower than the price the bidder thinks acceptable to pay, and judging whether there is more than one remaining bidder (a "competitive state") as a result of the determining step.

In response to a judgment that a competitive state does not occur, the remaining bidder is determined as the successful bidder. On the other hand, in

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response to a judgment that a competitive state occurs, the auction price is increased by a predetermined value, and the method repeats the steps of "judging, determining, and judging."

The Office Action finds these steps in Ausubel at col. 16, lines 25-45. However, this portion of Ausubel, which relates to a discussion of an overall auction involving two bidders and two dissimilar objects (licenses A and B), generally (and somewhat vaguely) describes six "auctions" within the overall actual auction, each having two or three "subauctions", analyzed to determine the overall winner of each object of an auction, wherein each sub-auction is operated with an ascending "clock" used to determine whether each bidder remains "in" following each loop of the disclosed price parameter. In particular, the clock begins running at zero and each bidder simultaneously indicates if she is "in". If both bidders are "in", the auctioneer increments the clock, and again each bidder simultaneously indicates whether she is "in". Each subauction concludes at the moment that at most one bidder indicates she is "in", and the outcome of the subauction is described as the price standing on the clock and which (if any) bidder is still "in". The determination of whether a bidder is "in" is made according to the flow shown in Figs. 5A, 5B, described in cols. 23-24 of the patent.

Ultimately, as described in col. 16, lines 35-45, the winner of each of the "auctions" comprising the "subauctions" is used to determine the winner of each object in the overall auction, according to col. 16, line 46 – col. 17, line 14. Specifically, each bidder is analyzed with respect to  $2^N$  objects of the overall auction, with the analyzed "auction" for each object being further analyzed for  $2^M-1$  subauctions representing each iteration or comparison of a bidder's bid for an object versus an opposing bid for all objects in the overall auction other than that bid upon.

Thus, in Ausubel's Vickery auction, each bidder submits a sealed bid consisting of a price associated with each subset of the available objects (that is, in a two-object overall auction, for each of the null set, object A, object B, and the combination of A, B), and the auctioneer then determines which allocation of objects is associated with the highest total bids. In analyzing the "auctions" and "subauctions" mentioned above, Ausubel describes the VCG mechanism or auction which injects a "truthfulness" to the process whereby the outcome is determined by removing each bidder from each subauction analysis, thereby incorporating the "opportunity cost" of each bidder introduced to each of the other bidders.

Ausubel determines whether the bidder is "in" by the flow shown in Figs. 5A-5B, as noted above. In this Vickery auction for multiple dissimilar objects a parameter  $P_{ij}(X)$  is initialized to zero, a subset  $Y$  of the total set of objects is selected, and the variable  $t$  is initialized to zero (that is, a price parameter  $P_0$  is set to zero). Then, each user  $i, j$  is queried to determine whether either bids for the object  $X$  sufficiently to remain "in". In doing so, Ausubel subtracts the user's bid for the subset  $Y$  from the bid for  $X$  and determines whether the difference is greater than the current price parameter  $P_t$  (which is zero initially). Then user  $j$  is queried to determine whether the bid for all subsets other than subset  $Y$  minus the bid for all subsets other than object  $X$  is greater than the price parameter  $P_t$ . Each bidder is queried in this way, without determining the actual bid. Thus, these steps of Ausubel do not retrieve bids, but just determine whether each user submits a bid that satisfies the defined condition. See col. 15, for example.

On determining that both user  $i$  and user  $j$  are "in" for the current subauction,  $t$  is incremented and the users are re-queried. That is, no auction price is increased, but instead the clock is increased, looping through each user's bids until it can be

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determined that one user has lost the subauction. In this regard, it is noted that although step 536 indicates that parameter  $P_{ij}$  is "updated" per the updated  $P_t$ , there is no teaching that  $P_{ij}$  is increased. Further, the "updating" does not occur as a result of a finding of a competitive state, but in fact as a determination corresponding to no competitive state with respect to  $i$  and  $j$ .

On the other hand, the present invention directly compares the current auction price with the bid prices in order to determine the successful bidder, resolving the competitive state. In this regard, the claimed "increasing the auction price by a predetermined value" in response to the competitive state, and repeating the judging, determining, and judging steps (c) – (e), is different from the clock increment of Ausubel. Accordingly, claim 35 should be found patentable.

Claim 37 is directed to an auction device which includes third means, fourth means, and fifth means which perform the judging, determining, and judging described above. Claim 37 is also limited by requiring that, in response to judgment in the fifth means that the competitive state occurs, the third, fourth, and fifth means are repeatedly executed with the auction price increased by a predetermined value.

Claim 40 recites an auction method that includes judging, determining, and judging steps similar to those claimed in claim 34, and further requires that in response to the judgment that the competitive state occurs, the auction price is increased by a predetermined value and the judging, determining, and judging steps are repeated.

Claim 45 recites an auction device that includes third, fourth, and fifth means for respectively judging, determining, and judging similar to the steps defined in claim 40. Claim 45 requires that, in response to judgment in the fifth means that the

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competitive state occurs, the third, fourth, and fifth means are repeatedly executed with the auction price increased by a predetermined value.

Therefore, each of the independent claims 37, 40, and 45 is patentable based on the same arguments advanced above with respect to independent claim 34. It goes without saying that the dependent claims are also allowable based at least on the patentability of the independent claims from which they are derived.

Concerning the rejection of claims 54-57, the Applicants assume that the reference to "column 25-26" is in error, since "Example One of the Invention's Applications" is found in columns 10-13 of the patent. Further, the determination of whether one or more bidders are "in", as well as the determination of final price for the remaining bidder, in Example One is different from the auction described in columns 14-17, upon which the rejection of the independent claims relies. Moreover, Example Six of Ausubel, which begins in col. 25 of the patent (and continues to column 28) does not clearly describe how to determine the final price for the remaining bidder. Column 14 – column 17, at least, must be consulted, and in this passage, the characteristic Vickery result of the (modified) second-highest bid determining the final price, is described.

Claims 74-77 are rejected based on the rationale of the rejection of claims 54-57, but claim 74 requires a step of determining a successful price of the successful bidder as being equal to or less than the price that the successful bidder thinks acceptable to pay for the product and higher than the auction price set before the competitive state is resolved by the predetermined value. Claims 75-77 are similar. Therefore, Ausubel does not anticipate these claims.

The Applicants have chosen to distinguish 54-57 and 74-77 to highlight the evident separate patentability of these claims, but this discussion should not be

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construed as an admission that the other rejected dependent claims do not have separate patentability. Rather, for brevity, those claims will not be separately distinguished at this time, but the Applicants reserve the right to the entire scope and separate patentability of each claim.

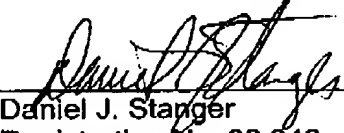
Claims 52-53, 58-59, 64-65 and 70-71 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ausubel over in view of Fisher, U.S. Patent No. 5,865,896 (Fisher). Each of these claims is a dependent claim and inherits the patentable features of the independent claims argued above. Therefore, for brevity, the separate patentability of these claims will not be argued at this time, although the Applicants reserve the right to the full scope of each claim, as noted.

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger & Malur, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. ASA-672-02).

Respectfully submitted,

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